

**Notice of Allowability**

Application No.

09/872,938

Examiner

Leslie Wong

Applicant(s)

LYNCH ET AL.

Art Unit

2164

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 04/16/2007.
2. ☒ The allowed claim(s) is/are 1-39 and 42-43 and now renumbered as 1-41.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some\* c) ☐ None of the:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO/SB/08),  
Paper No./Mail Date 06/19/2007
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☒ Notice of Informal Patent Application
6. ☐ Interview Summary (PTO-413),  
Paper No./Mail Date \_\_\_\_\_.
7. ☒ Examiner's Amendment/Comment
8. ☐ Examiner's Statement of Reasons for Allowance
9. ☐ Other \_\_\_\_\_.

### EXAMINER'S AMENDMENT

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Mr. Thomas S. Ferrill on June 11, 2007.

This listing of claims will replace all prior versions and listings of claims in this application.

1. (Currently Amended) A method, comprising:

executing a search on content in one or more documents based on a content of a query, wherein the content of the query is from one or more specified fields but less than all of the fields of a reference extensible markup language document;

\_\_\_\_\_generating a list of one or more related documents to the query ranked based upon relevance to a first representation of content associated with a first field the one or more specified fields of a reference extensible markup language document, wherein the first representation includes a set of terms and one or more weighted values associated with each term in the set of terms from the reference extensible markup language document but less than all of the terms from the reference extensible markup language document; and

mapping a link to point to a relevant field within a related document based on the relevance to the first representation of content associated with the one or more specified fields of the reference extensible markup language document for each of the one or more related documents to the query;

generating a link ~~to~~for each of the one or more related documents in the list of one or more related documents, wherein ~~the~~each link points to a relevant field within ~~each of the one or more~~ its related documents.

2. (Currently Amended) The method of claim 1, wherein ~~the~~a first field from the one or more specified fields in the reference extensible markup language document is specified at the time a query is generated.

3. (Currently Amended) The method of claim ~~1~~2, wherein a user to specify ~~the one or more related documents comprise a first related document~~ from the list of one or more related documents having a second one or more fields in the related documents to be searched, at the time the query is generated, ~~a user specifies to search content associated with the second field.~~

4. (Original) The method of claim 1, wherein the reference extensible markup language document is selected from a group of documents in a database.

5. (Original) The method of claim 1, further comprising:

submitting the reference extensible markup language document to an engine for analysis.

6. (Original) The method of claim 1, wherein the link is a hypertext link.

7. (Currently Amended) The method of claim 3, wherein the ~~second~~one or more fields of the related document contains semantically similar content to the content associated with the first one or more specified fields of the reference extensible markup language document.

8. (Original) The method of claim 1, further comprising:  
executing a query on the reference extensible markup language document to generate the list and the link without a user having to request the query.

9. (Original) The method of claim 1, wherein the list further includes references to relevant fields within each related document.

10. (Original) The method of claim 1, wherein the set of terms includes singular terms and higher order terms.

11. (Original) The method of claim 1, wherein the set of terms includes singular terms and noun phrases.

12. (Original) The method of claim 1, wherein the set of terms includes higher order terms and proper names.

13. (Currently Amended) An apparatus, comprising:

a memory to store a first representation of content associated with one or more specified fields of a reference extensible markup language document but less than all of the fields of the reference extensible markup language document, wherein the first representation including a set of terms and one or more weighted values for each term in the set of terms from the reference extensible markup language document but less than all of the terms from the reference extensible markup language document; and

an engine having a reference extensible markup language document input and a specified field input, the engine to generate a list of one or more related documents, to map a link to point to a relevant field within a related document based on the relevance to the first representation of content associated with the one or more specified fields of the reference extensible markup language document for each of the one or more related documents to the query, and to generate a link to each of the one or more related documents, wherein the link for that document points to a relevant field within ~~each of the one or more related~~that documents, the one or more related documents ranked based upon relevance to the first representation of content associated with the one or more specified fields of the reference extensible markup language document.

14. (Currently Amended) The apparatus of claim 13, further comprising:

a database of documents containing the one or more related documents.

15. (Original) The apparatus of claim 13, further comprising:

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a database containing a plurality of representations, each representation being associated with content in a particular field in an extensible markup language document.

16. (Original) The apparatus of claim 13, wherein the engine adjusts the one or more weighted values for each particular term in the set of terms by a comparison to a historical weighted value associated with each particular term in the set of terms.

17. (Original) The apparatus of claim 13, further comprising:

a converter to convert a non-extensible markup language document into an extensible markup language format.

18. (Original) The apparatus of claim 17, wherein the non-extensible markup language document is content associated with an e-mail, content associated with a web page, or content associated with a software application.

19. (Original) The apparatus of claim 13, wherein the engine has a module to compare the first representation to a plurality of representations in a database in order to identify documents that are most similar to the first representation.

20. (Original) The apparatus of claim 13, wherein the engine executes a query on the reference extensible markup language document to generate the list and the link without a user having to request the query.

21. (Currently Amended) A method, comprising:

receiving a reference extensible markup language document as a first input to an engine;

specifying a ~~first field~~ one or more fields but less than all of the fields in the reference extensible markup language document as a second input to an engine;

generating a representation of the reference extensible markup language document, wherein the representation includes a set of terms and one or more weighted values associated with each term in the set of terms from the reference extensible markup language document but less than all of the terms from the reference extensible markup language document;

generating a list of related documents ranked based upon their semantic similarity to content in the ~~first field~~ one or more specified fields in the representation of the reference extensible markup language document;

mapping a link to point to a relevant field within a related document based on the relevance to the first representation of content associated with the one or more specified fields of the reference extensible markup language document for each of the one or more related documents to the query; and

generating a link to each related document in the list, wherein the link for that document points to a relevant field within ~~each of the one or more~~ that related documents.

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22. (Original) The method of claim 21, wherein the reference extensible markup language document has a first extensible markup language schema, and a first related extensible markup language document has a second extensible markup language schema.

23. (Currently Amended) The method of claim 21, further comprising:

identifying a first representation of content associated with a first field of the reference extensible markup language document, the first representation including a first set of terms and one or more weighted values associated with each term in the first set of terms; and

identifying a second representation of content associated with a second field in a first related extensible markup language document, the second representation including a second set of terms and a second weighted value associated with each term in the second set of terms.

24. (Currently Amended) An apparatus, comprising:

means for receiving a reference extensible markup language document as a first input to an engine;

means for specifying ~~a first field~~ one or more specified fields but less than all of the fields in the reference extensible markup language document as a second input to an engine;



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means for generating a representation of the reference extensible markup language document wherein the representation includes a set of terms and one or more weighted values associated with each term in the set of terms from the reference extensible markup language document but less than all of the terms from the reference extensible markup language document;

means for generating a list of related documents ranked based upon their semantic similarity to content in the ~~first field~~ one or more specified fields in the representation of the reference extensible markup language document;

means for mapping a link to point to a relevant field within a related document based on the relevance to the first representation of content associated with the one or more specified fields of the reference extensible markup language document for each of the one or more related documents to the query; and

means for generating a link to each related document in the list, wherein the link for that document points to a relevant field within ~~each of the one or more~~ that related documents.

25. (Original) The apparatus of claim 24, wherein the reference extensible markup language document has a first extensible markup language schema, and a first related extensible markup language document has a second extensible markup language schema.

26. (Currently Amended) The apparatus of claim 24, further comprising:

means for identifying a first representation of content associated with a first field of the reference extensible markup language document, the first representation including a first set of terms and one or more weighted values associated with each term in the first set of terms; and

means for identifying a second representation of content associated with a second field in a first related extensible markup language document, the second representation including a second set of terms and a second weighted value associated with each term in the second set of terms.

27. (Currently Amended) An article of manufacture being one or more machine-readable media that store instructions, which when executed by a machine, cause the machine to perform operations comprising:

executing a search on content in one or more documents based on a content of a query, wherein the content of the query is from one or more specified fields but less than all of the fields of a reference extensible markup language document;

generating a list of one or more related documents to the query ranked based upon relevance to a first representation of content associated with a first field the one or more specified fields of a reference extensible markup language document, wherein the first representation includes a set of terms and one or more weighted values associated with each term in the set of terms from the reference extensible markup language document but less than all of the terms from the reference extensible markup language document;

mapping a link to point to a relevant field within a related document based on the relevance to the first representation of content associated with the one or more specified fields of the reference extensible markup language document for each of the one or more related documents to the query; and

generating a link to each related document in the list, wherein the link for that document points to a relevant field within ~~each of the one or more~~that related documents.

28. (Previously presented) The article of manufacture of claim 27, further comprising:  
executing a query on the reference extensible markup language document to generate the list and the link without a user having to request the query.

29. (Currently Amended) A method, comprising:

analyzing content in an active desktop window;  
executing a query on the content from ~~an~~the active desktop window without a user having to request the query;  
comparing one or more portions of the content to a plurality of documents;  
generating a ranked list of documents related to the content based on similarity to the content in the active desktop window; and  
generating links to the documents from the ranked list of documents, wherein the links point to ~~a~~one or more relevant fields within the documents from the ranked list of documents.

30. (Currently Amended) The method of claim 29, further comprising:

~~analyzing text from the content in the active desktop window; and~~  
generating a set of most relevant terms from the text in the content, wherein text makes up at least one or more portions of the content in the active desktop window.

31. (Previously presented) The method of claim 30, wherein the set of most relevant terms is determined based upon use of a probabilistic algorithm.

32. (Previously presented) The method of claim 31, wherein the probabilistic algorithm uses a Bayesian model.

33. (Previously presented) The method of claim 29, wherein the documents include at least one unstructured document.

34. (Previously presented) The method of claim 29, wherein the active desktop window is running an email application.

35. (Currently Amended) An apparatus, comprising:

means for analyzing content in an active desktop window;  
means for executing a query on the content from ~~an~~the active desktop window without a user having to request the query;

means for comparing one or more portions of the content to a plurality of documents;

means for generating a ranked list of documents related to the content based on similarity to the content in the active desktop window; and

means for generating links to the documents from the ranked list of documents, wherein the links point to one or more relevant fields within the documents from the ranked list of documents.

36. (Currently Amended) The apparatus of claim 35, further comprising:

~~means for analyzing text from the content in the active desktop window; and~~

means for generating a set of most relevant terms from ~~the text~~ in the content, wherein text makes up at least one or more portions of the content in the active desktop window.

37. (Previously presented) The apparatus of claim 36, wherein the set of most relevant terms is determined based upon use of a Bayesian algorithm.

38. (Previously presented) The apparatus of claim 35, wherein the related documents include a structured document as well as an unstructured document.

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39. (Currently Amended) An article of manufacture being one or more computer-readable media that store instructions, which when executed by a machine, cause the machine to perform operations comprising:

generating a query on content from an active desktop window;

generating a ranked list of documents related to the content based on the content in the active desktop window; and

generating links to the related documents, wherein the links point to a relevant fields within the related documents;

analyzing text from the content in the active desktop window; and

generating a set of most relevant terms from the text, wherein the query is executed on the set of most relevant terms from the text without a user having to request the query.

40. (Canceled)

41. (Canceled)

42. (Currently Amended) The apparatus of claim 4039, wherein the set of most relevant terms is determined based upon use of a Bayesian algorithm.

43. (Currently Amended) The apparatus of claim 4439, wherein the related documents include unstructured documents.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Leslie Wong whose telephone number is (571) 272-4120. The examiner can normally be reached on Monday to Friday 9:30am - 6:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, CHARLES RONES can be reached on (571) 272-4085. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Leslie Wong  
Primary Patent Examiner  
Art Unit 2164

LW  
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